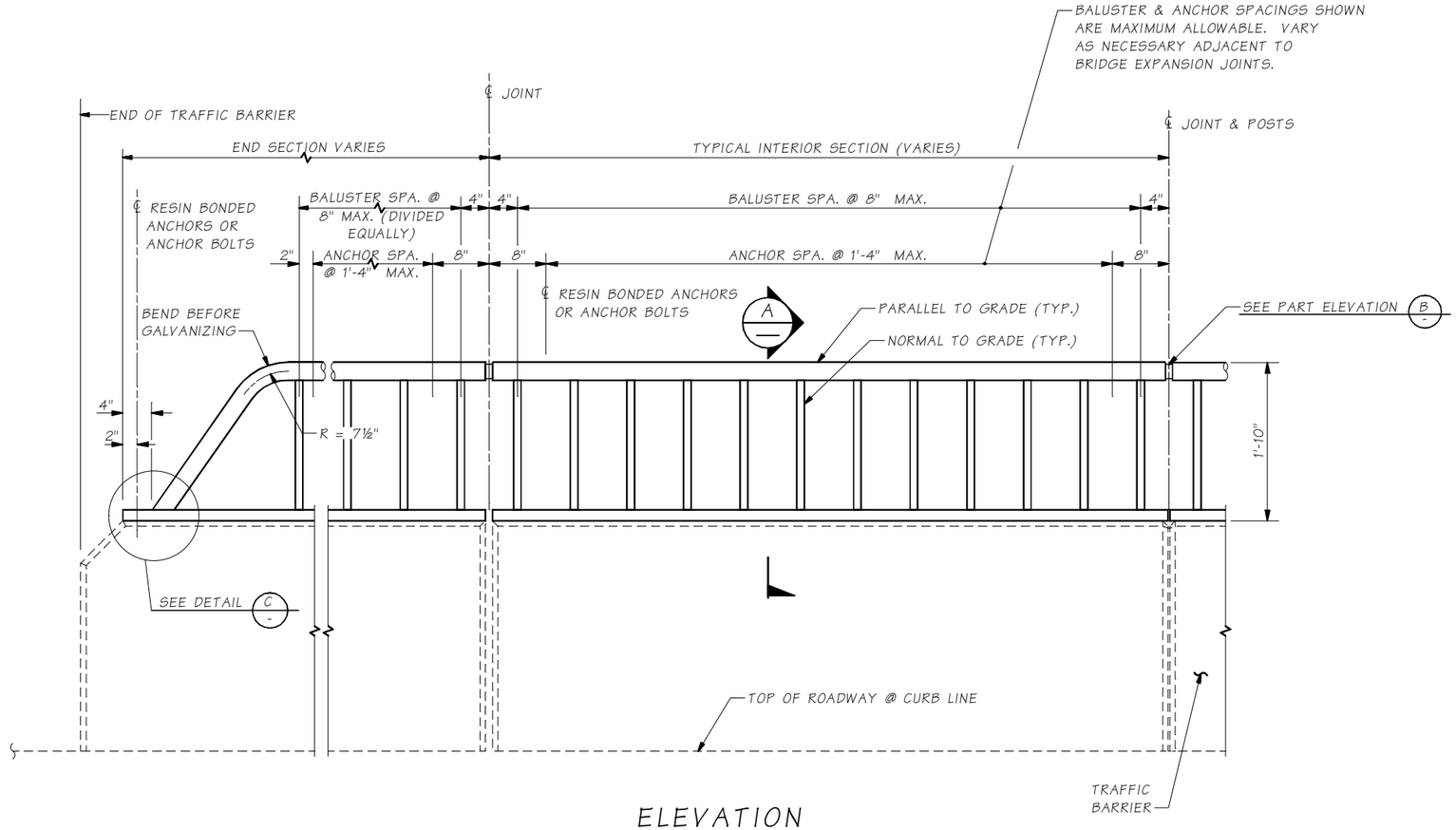
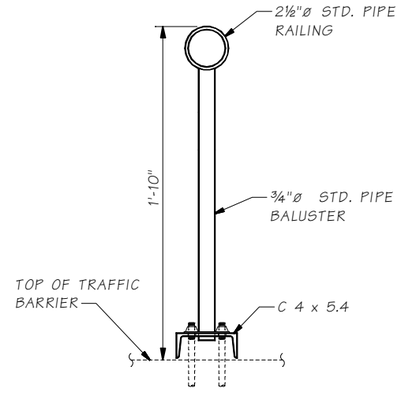
MAT'L	PART	MATERIAL SPECIFICATION
STEEL	PIPES	ASTM A53 GRADE B SCHEDULE 40 (STD. PIPE). GALVANIZED IN ACCORDANCE WITH AASHTO M 111.
	WASHERS	ASTM A 193 GRADE B7 GALVANIZED IN ACCORDANCE WITH AASHTO M 232.
	PLATES/BAR CHANNELS	ASTM A 36 GALVANIZED IN ACCORDANCE WITH AASHTO M 111
	DRIVE PINS	ASTM A 276 TYPE 302 STAINLESS STEEL
	ANCHOR BOLTS	ASTM F 593 TYPE 302 STAINLESS STEEL
NUTS		TAMPER-PROOF TYPE OF EITHER CLEAR ANODIZED ALUMINUM OR ZINC ALLOY



ELEVATION

BALUSTER ATTACHMENT DETAILS NOT SHOWN



SECTION A

NOTES

1. PIPE RAILING, PIPE RAILING SPLICES, AND CHANNELS SHALL BE BENT TO THE HORIZONTAL CURVE WHERE THE RADIUS OF CURVATURE IS LESS THAN 200 FEET.
2. SHOP DRAWINGS OF RAILING SHALL BE SUBMITTED FOR APPROVAL SHOWING COMPLETE DIMENSIONS AND DETAILS OF FABRICATION, GALVANIZING AND INCLUDING AN ERECTION DIAGRAM. MATERIAL BEING USED SHALL BE SPECIFIED IN THE SHOP DRAWINGS.
3. THE BRIDGE RAILING SHALL BE HOT DIP GALVANIZED AFTER FABRICATION PER AASHTO M 111. ALL COMPONENTS OF RAIL PANEL, POSTS, AND SPLICE SLEEVES SHALL HAVE ALL SURFACES HOT DIP GALVANIZED PRIOR TO ASSEMBLY.
4. CUTTING SHALL BE DONE BY SAWING OR MILLING AND ALL CUTS SHALL BE TRUE AND SMOOTH.
5. PIPE RAILING, PIPE BALLUSTERS, RAILING SPLICE AND CHANNELS SHALL BE ADEQUATELY WRAPPED TO ENSURE SURFACE PROTECTION DURING HANDLING AND TRANSPORTATION TO THE JOB SITE.
6. WELDING SHALL BE DONE IN ACCORDANCE WITH AWS D1.1.
7. PIPE RAILING AND SPLICES MAY BE HEATED TO FACILITATE FORMING OR BENDING.
8. THE CONTRACTOR SHALL REPAIR ALL GALVANIZED STEEL SURFACES DAMAGED BY FIELD OPERATIONS, BY PAINTING THE DAMAGED AREAS WITH TWO COATS OF PAINT CONFORMING TO FORMULA A-9-73 AS SPECIFIED IN SECTION 9-08.2 OF THE WASHINGTON STATE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.

Bridge Design Engr.	M:\STANDARDS\BP Rails\STEEL RAILING BP-1.man				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor					10	WASH.			
Designed By					JOB NUMBER				
Checked By									
Detailed By									
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist	DATE	REVISION	BY	APP'D					

BRIDGE AND STRUCTURES OFFICE

Washington State Department of Transportation

STANDARD RAILINGS

BRIDGE RAILING TYPE S-BP
DETAILS 1 OF 2

BRIDGE SHEET NO.

SHEET OF SHEETS

SR 10.5-A3-1 JOB NO. SHEET 1

Mon May 07 08:34:34 2012